

Date: Tue, 9 Mar 93 11:43:21 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #295  
To: Info-Hams

Info-Hams Digest                      Tue, 9 Mar 93                      Volume 93 : Issue 295

Today's Topics:

ALERT: Minor Geomagnetic Storm Upgraded to Major Event  
ALERT: Satellite Proton Event Alert  
Amateur Radio in the News  
Aurora  
Birdwatching Hams  
Elevated Radials  
Help building portable GPS antenna  
Info needed on GPS  
J-pole for Satellite  
License delays  
Lightning and inside wiring (2 msgs)  
Looking for opinions on two receivers  
Metal rails and ICOM-style battery packs  
Periphex  
Squeeling and sqwaking ICW2A  
Using PA-6 DC adapter with the FT-470

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 9 Mar 93 16:56:03 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: ALERT: Minor Geomagnetic Storm Upgraded to Major Event  
To: info-hams@ucsd.edu

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## UPGRADED: 15:00 UT, 09 MARCH

The minor geomagnetic storm has been upgraded to a major category event. Geomagnetic activity surpassed the major storm threshold at 0900Z on 09 March. Major to severe geomagnetic storming has been observed over the last 15 hours. Minor to major storming continues in progress at the present time. There are signs the activity is beginning to subside. Periods of minor to major substorm activity are expected during the local night sectors, particularly over the high latitude regions.

**\*\* End of Alert \*\***

Date: Tue, 9 Mar 1993 12:23:12 GMT  
From: nsisrv!news1.gsfc.nasa.gov!NewsWatcher!user@ames.arpa  
Subject: ALERT: Satellite Proton Event Alert  
To: info-hams@ucsd.edu

TXN we had the Aurora last night. Fair on 2 Meters. West and East.Dick  
W1DGA

Date: 9 Mar 93 17:03:56 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Amateur Radio in the News  
To: info-hams@ucsd.edu

Orlando Sentinel, 3/9, page A-7,

## Headline: Ham radio 'nerds' are heroes in Bosnia

Story from Washington Post source originating in Sarajevo. Article outlines how Himzo Devedzija, described as a "classic nerd" - pudgy, balding guy sitting in front of a banged up radio, is a hero today because the 11 month war has turned Bosnia into the land of disconnections.

Yet another tie point for selling people on the worth of amateur radio and shortwave listening...

bill wb9ivr%pubs%genav.mlb@ns14.cca.cr.rockwell.com

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Date: Tue, 9 Mar 1993 13:59:15 GMT  
From: dog.ee.lbl.gov!hellgate.utah.edu!cs.utexas.edu!uwm.edu!linac!  
newsaintmail@network.UCSD.EDU  
Subject: Aurora  
To: info-hams@ucsd.edu

Last night about 0000 UTC we had reports of a fairly strong Auroral opening through the packet cluster. Because of problems with the 2M station I only operated 6 meters. It seemed to last about three hours. However, about 0820 UTC the band opened up again, only this time the signals peaked much higher in strength and seemed to have more characteristics of an Auroral E. After about an hour the signals were down to a lower level with the more auroral sound. Nothing special as far as grids worked but a lot of fun; anyone else work the opening?

Cheers,  
Kermit W9XA

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Date: 9 Mar 93 17:45:59 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Birdwatching Hams  
To: info-hams@ucsd.edu

Dr. John Murnane a.k.a. WB1APD published a note in Winging It, the newsletter of the American Birding Association looking to get in touch with birdwatchers who are also Hams. I thought I'd relay his request to this list to see if I can help locate Hams who also Birdwatch. He would like to compile a mailing list and possible set up a net.

If you are a birding ham, please drop a note, qsl card etc. to :

Dr. John P. Murnane      WB1APD  
PO Box 4  
Sorrento, ME      04677-0004

tnx.  
de N1GTQ/AA  
--

Stephen P. Baker  
Lecturer in Biostatistics

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e-mail: sbaker@umassmed.bitnet

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Date: Tue, 9 Mar 1993 16:07:22 GMT  
From: pacbell.com!att-out!cbfsb!cbnewsb.cb.att.com!feg@network.UCSD.EDU  
Subject: Elevated Radials  
To: info-hams@ucsd.edu

In article <14570662@hpnmdla.sr.hp.com> alanb@hpnmdla.sr.hp.com (Alan Bloom) writes:

>In rec.radio.amateur.misc, feg@cbnewsb.cb.att.com (forrest.e.gehrke) writes:  
>

>>In article <1993Feb25.144049.15099@cbfsb.cb.att.com> wstrahl@cbnewsg.cb.att.com (wayne.a.strahl) writes:

>>>

>>>The March 1993 issue of QST (Technical Correspondence - page 72) has an  
>>>article which purports that a few elevated radials can be as effective  
>>>as the '120 radial standard in-ground groundplane' under .25 wavelength  
>>>high vertical monopoles. I'm not from Missouri, but can someone please  
>>>"SHOW ME" if this is in fact true. Is this the secret we've all been  
>>>looking for for our 80 mtr antenna efficiency problems?

>...

>>You have to know a lot more about the system. E.g. results are  
>>affected by the height of the ground plane above ground.

>

>Because the ground is not a perfect conductor, it has loss resistance.  
>One purpose of the radials is to "shield" the antenna from the ground  
>to reduce absorption. If the bottom of the antenna (where the radials  
>are) is too close to the ground, you don't get good shielding action.

>

>A 2 meter ground plane is usually many many wavelengths above ground,  
>so ground absorption is not a problem. On 80 meters, a wavelength  
>is over 250 feet. Ground losses are almost a given.

>

>AL N1AL

>

A ground plane for a 1/4 w.l. vertical serves two purposes:

- 1) Provide a virtual 1/4 w.l. of a dipole, i.e. the other half of a half wave element.

To that end, the closer one can get to that 1/4 w.l. vertical being a self impedance of approx. 36.5 ohms

resistance, the lower the losses.

- 2) Provide a good reflector so that the main vertical lobe is brought down as low as possible.

To do this part effectively, the ground plane would have to be a solid high RF conductivity disc at least 6 w.l. in radius.

So anything less is simply a compromise. When we lay down 120 1/4 w.l. radials we attain objective #1 pretty closely but only partially for objective #2.

BTW although I have never measured this myself, I have been told that the common 2 meter 1/4 vertical with 4 1/4 radials measures about 50 ohms self impedance when the antenna is many wavelengths above the ground. And this is provided the feedline is brought straight down from the vertical.

Forrest Gehrke feg@dodger.att.com k2bt

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Date: Fri, 5 Mar 1993 13:52:39 GMT  
From: usc!howland.reston.ans.net!newsserver.jvnc.net!synapse.bms.com!helix!  
gopstein@network.UCSD.EDU  
Subject: Help building portable GPS antenna  
To: info-hams@ucsd.edu

I am building a handheld GPS receiver based on the Magellan OEM GPS board. I've got all of the parts that I need, except for a small antenna -- the one that came with the board is meant for vehicle mounting, and is much too big to use on a handheld unit.

Can anyone offer suggestions on building a compact, 50 ohm antenna for 1575 MHz? Thanks!

Rich, KD2CQ

--  
Rich Gopstein

gopstein@bms.com  
rutgers!bms.com!gopstein



Date: Tue, 09 Mar 1993 16:43:27 GMT  
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!gatech!  
swrinde!zaphod.mps.ohio-state.edu!wupost!spool.mu.edu!mixcom.com!  
kevin.jessup@network.UCSD.EDU  
Subject: License delays  
To: info-hams@ucsd.edu

This is probably a FAQ, but I have not seen any detailed info on the subject lately.

I've heard that the FCC has one (and ONLY one) person working only 4 hours per week (or is it per month??) on the processing of new amateur radio licenses. Is this true?

I've also heard that new HAMS are waiting up to 12 weeks for a license. Yet, a week or two ago, someone posted an article saying it took only 7 weeks. Are they really catching up on the back-log, or was that 7-weeker a fluke?

Maybe we need a rec.radio.amateur.fcc.peeves group. ;-)  
Thanks for letting me vent a little frustration! Eight weeks and counting.

--  
Kevin Jessup, kevin.jessup@mixcom.mixcom.com

"Friends don't let friends run DOS."  
-- Microware

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Date: Tue, 9 Mar 1993 13:28:41 GMT  
From: usc!howland.reston.ans.net!gatech!wa4mei!ke4zv!gary@network.UCSD.EDU  
Subject: Lightning and inside wiring  
To: info-hams@ucsd.edu

In article <1993Mar8.225111.18129@nynexst.com> atul@nynexst.com writes:

>In article 23343@ke4zv.uucp, gary@ke4zv.uucp (Gary Coffman) writes:

>>Section 810-21

>>

>> (e) Run in Straight line. The grounding conductor for  
>> an antenna discharge unit shall be run in as straight  
>> a line as practicable from the mast or discharge unit  
>> to the grounding electrode.

>>

>>This is critical. Any sharp bends will add enough inductance to  
>>restrict the flow of discharge currents.

>>

>> (g) Inside or Outside Building. The grounding conductor

>> shall be permitted to be run either inside or outside  
>> the building.  
>>  
>  
>I mounted a receive only long wire antenna from my second floor  
>window to a nearby tree. I was planning to sink an 8 ft ground  
>rod right below the window. I tried pushing the rod into the  
>ground in the vicinity of the window. Unfortunately, I cannot  
>make the rod go more than 2 ft deep. I guess there must be rocks  
>in the earth. My only other recourse is to run the ground wire  
>down to the basement, through the metal frame of the basement  
>window, to the cold water pipe (just before the water meter  
>and valve). Incidentally, the electrical ground for the house  
>wiring is tapped from the same location.  
>  
>I plan to install a lightning arrestor just outside the second  
>floor window.  
>  
>Am I going to violate any code by running the ground wire for  
>an outdoor antenna through a metal window frame to a cold water  
>pipe instead of running it to a grounding rod outside the  
>house?

This is not a code violation, but it isn't ideal as a lightning protective measure. The service water line should be an excellent ground, but if you have to run a long lead with bends to reach it, it won't act as a low impedance path to the higher frequency components of the lightning bolt.

I don't know how you are trying to sink the ground rod. Here's a trick many electricians use. Dig a hole about the size of a quart jar, fill it with water, shove the ground rod into the center of the bottom of the hole. Now with a butter churning motion, pump the rod into the ground. Every foot or so you should remove the rod and let water flow into the hole. This will work great with ordinary soil. You can sink an 8 foot rod in a couple of minutes. If you hit a rock, you can either try to break the rock with a few licks of a sledge hammer, or you can slant the rod and go around it. The Code allows slanted rods, and even allows rods to be buried horizontally if there is solid rock below. Minimum depth for a horizontally buried rod is 30 inches. This rod should be tied to your service ground, in this case the cold water line, with a minimum #6 copper wire.

Gary

--

Gary Coffman KE4ZV

| You make it,

| gatech!wa4mei!ke4zv!gary



Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary  
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244 | |

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Date: 9 Mar 1993 15:44:50 GMT  
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net  
Subject: Lightning and inside wiring  
To: info-hams@ucsd.edu

> I tried pushing the rod

Push? I can't even push a ground rod 6" in to the soil here. That's why I've got a big hammer.

-Ron

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Date: 9 Mar 93 15:51:15 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Looking for opinions on two receivers  
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, gleason@mwk.com writes:

> I have a couple of questions about receivers...

> When I first got interested in ham radio, circa 1965, the receiver  
>I wanted most in the world was a BC-348. Now, many years later, I've  
>thought of looking for one, but am wondering if a receiver that old  
>is likely to be usable. I'm not wondering if it will be competitive  
>with modern gear (obviously not), just wondering if a 40 year old  
>tube radio will have rotted into uselessness by now...anyone out there  
>used one lately?

>

Well, I have no direct experience of a BC-348, but I still use a BC453  
command-receiver occasionally, and have a RCA AR88D which can still give  
many modern receivers a good run, specially on the lower bands.  
You can still get the tubes at competitive prices (between  
2 and 5 dollars each, thats for genuine JAN-marked tubes from a major  
manufacturer like RCA or Sylvania, not some spurious 'unbranded' product).  
Some of the tubes I bought even came in packages bearing WW2 date-stamps and  
with military release-papers...  
Not bad for a receiver built in 1944. Dammit, its 16 years older than I am!

Only problem with old receivers is that some of the components may have aged; paper decoupling capacitors are a favorite here; they go leaky with age, and the resulting leakage can cause biasing problems, or burnout of components like screen feed-resistors. Then there is 'green spot' failure of wound components such as IF and audio-transformers. There is little hope of getting new replacement coils etc. for a 50 year old receiver. But often the coils can be rewound using new wire on the old formers, if you count the # of turns as you take them off...

-Pete Lucas G6WBJ pjml%swmis.nsw.ac.uk@nsfnet-relay.ac.uk  
NERC Computer Services, Swindon, UK Greetings from all on Subnet 192

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Date: 9 Mar 93 17:57:35 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Metal rails and ICOM-style battery packs  
To: info-hams@ucsd.edu

"David" said:

If someone made a super rugged battery with metal rails, wouldn't this just mean that you have to replace the transceiver case after dropping it ?

The best comment so far has to be for an easily and cheaply repaired battery case, designed to fracture and protect the more expensive radio, But I'd rather have a properly designed thing that would bounce if dropped. (I'd also want a tight amateur band only front end filter, but that's another thread..)

I say:

Curiously enough this is another thing that Radio Shack did correctly on the HTX-202 the HT: the supplied battery packs and the HT have metal rails.

And the HT also has a tight front end. I'm pretty happy with my one. Perhaps if Radio Shack made a dual bander with a pair of tight front ends (and managed to fit it in the same sized case) they could be onto another winner? Its interesting to comaper the relative quality of the HTX-100 and the HTX-202. The 100 is much more consumer grade (flimsy, plasticky, ill-fitting) whereas the 202 seems much more solidly built. Is this the difference between modifying an existing design and starting from scratch?

Do any of the battery companies make ICOM style replacement battery packs with metal rails. I need a couple more batteries for this machine. Do any of these comanpies made drop in chargers to work with

the ICOM style packs?

Anyone had bad experiences with metal rails on battery packs?

All info and experiences welcome.

Kevin Purcell N7WIM / G8UDP

a-kevinp@microsoft.com

"We conjure the spirits of the computer with our spells"

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Date: Tue, 9 Mar 1993 11:07:28 GMT

From: pacbell.com!sgiblab!sdd.hp.com!apollo.hp.com!hpwin052!hpqmoea!

dstock@network.UCSD.EDU

Subject: Periphex

To: info-hams@ucsd.edu

Maybe if I knew what I was talking about, I'd suspect that the product designer INTENDED the battery to break, rather than the radio case to break. I'd suggest that if anyone made a super-strong metal battery case, then there would be a risk that the mating part of the radio would be the weak link. As it is the battery that breaks, you at least have the benefit of choosing between two suppliers - which should help keep the price down.

I recently looked at the available hand-helds, wondering about buying one. I did not buy one, none seemed robust enough to be expected to survive life in the real world. All had the ability to receive over a much wider range than just the amateur band, and were consequently prone to overload from non-amateur signals. I must admit that I'd never have guessed that only a 6 inch drop would damage the flimsiest of the bunch. But maybe I knew what I was doing when I didn't buy one?

The commercial Motorola/Pye/Burndepth hand helds that I've used in the past survived many falls, being trodden on etc. and survived. Although totally devoid of features, they could be operated by feel- allowing me to keep my eyes on other things.

Unless the amateur handheld manufacturers feel the heat of some flames, or better still lost sales, they will make shoddier and shoddier radios.

I hope this makes my opinions clearer.

David

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Date: Mon, 8 Mar 1993 22:13:22 GMT  
From: pacbell.com!UB.com!daver!dlb!megatest!mithril!rlanoc@network.UCSD.EDU  
Subject: Squeeling and sqwaking ICW2A  
To: info-hams@ucsd.edu

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Date: Mon, 8 Mar 1993 23:10:35 GMT  
From: elroy.jpl.nasa.gov!sdd.hp.com!hpscit.sc.hp.com!hplextra!hpcss01!hpcuhe!  
donh@ames.arpa  
Subject: Using PA-6 DC adapter with the FT-470  
To: info-hams@ucsd.edu

While on the subject of the FT-470, why does Yaesu say not to use  
Nicads in the FBA-17 battery case. I don't see any reason why  
this can't be done and in fact I use Nicads in the case with no  
problems. Are they trying to protect the sale of their Nicad  
packs by making this statement? Any body got an answer?

-----  
Date: (null)  
From: (null)

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Rob LaNoce                    KD6DMQ  
sun!megatest!rlanoc        Megatest Corporation - San Jose, CA  
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Date: 9 Mar 1993 17:56:14 GMT  
From: news.tek.com!cascade.ens.tek.com!ronk@uunet.uu.net  
To: info-hams@ucsd.edu

References <1993Mar6.152436.23343@ke4zv.uucp>,  
<1993Mar8.225111.18129@nynexst.com>, <1nie1iINN3ll@topaz.bds.com>xas  
Reply-To : Ron.C.Kirkpatrick@tek.com  
Subject : Re: Lightning and inside wiring

In article <1nie1iINN3ll@topaz.bds.com>, ron@topaz.bds.com (Ron Natalie) writes:  
|> > I tried pushing the rod  
|>  
|> Push? I can't even push a ground rod 6" in to the soil here. That's why

|> I've got a big hammer.  
|>  
|> -Ron

I guess I found a good! spot! I pushed my 8ft ground rod in 7ft before I had to use brute force.

--

Ron Kirkpatrick  
News Administrator/Postmaster  
Tektronix, Inc  
503-627-6707

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End of Info-Hams Digest V93 #295  
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